Performance-Driven Stormwater Programs

Lake Tahoe Example

Chad Praul, Peter Kraatz & Jeremy Sokulsky

APPROACH

Incentives

- Financial
- Informational
- Regulatory

→

Behavior = Decisions & Actions

→

Environmental Outcomes

Environmental Incentives
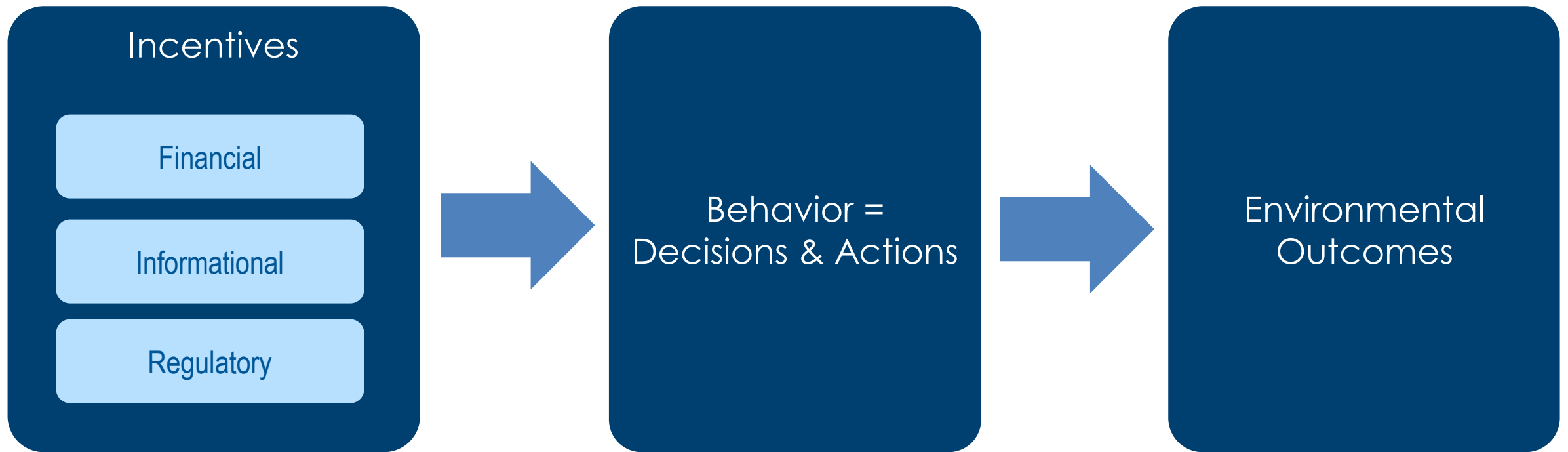
URBAN STORMWATER CREDITING PROCESS & TOOLS

Set Expectations
Once per lifetime of infrastructure

Inspect Actual Conditions
Annually

Register

2016 Credit Milestone: 200
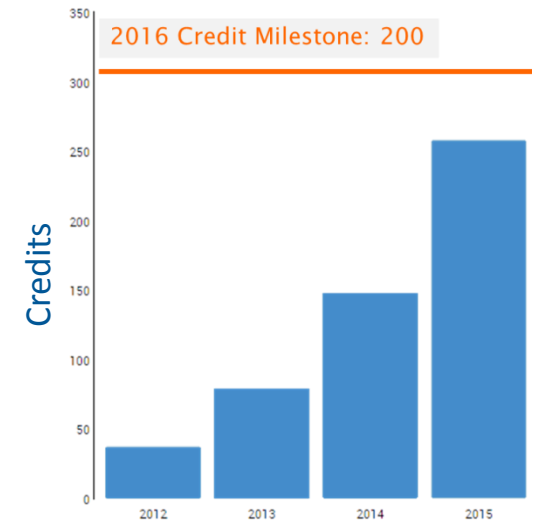
KEY PRINCIPLES

Share the Theory of Change

Select Metrics & Credit Success
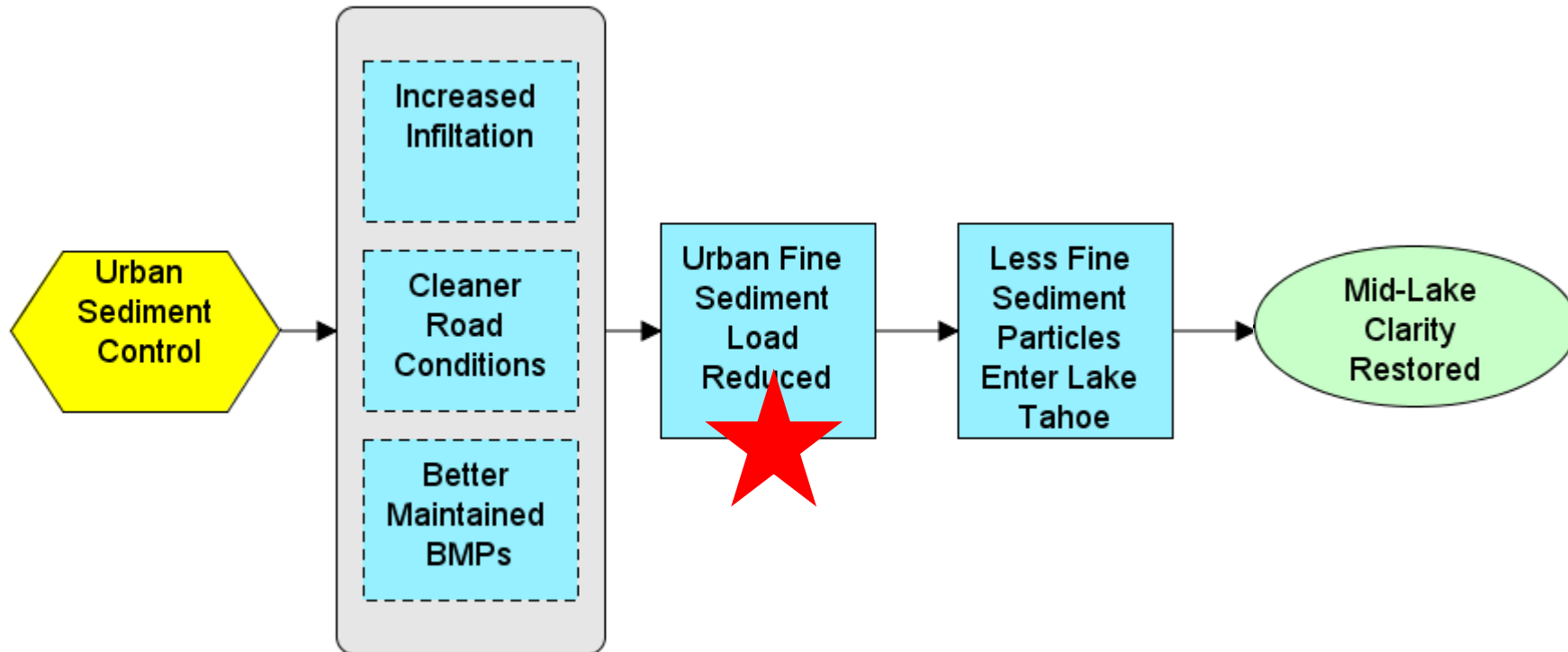
Structure Reporting & Adaptation

Understand the "Why"

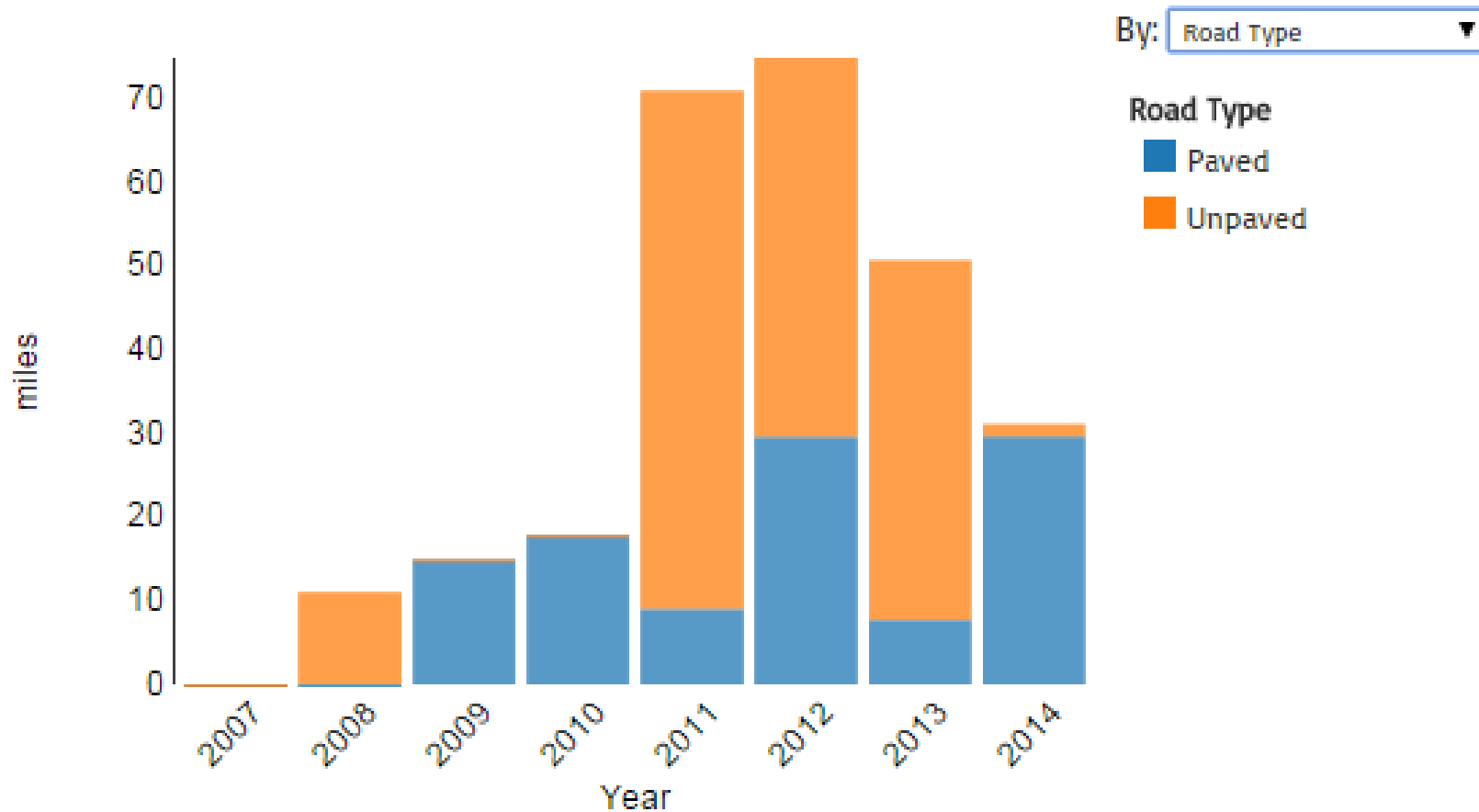# SHARE THEORY OF CHANGE

Select Metrics & Credit Success

- Focus on metrics with quantity & quality

- Aspirational but achievable targets motivate action

- Interim milestones address long timeframe issues

Placer County Milestones

Environmental Incentives

NON-MS4 SOURCE TRACKING METRICS

⊙ Miles of Roads Treated

By: Road Type ▼

Road Type
- ■ Paved
- ■ Unpaved

Lake Clarity Credits

Miles of Roads Inspected & Maintained

Miles of Roads Created
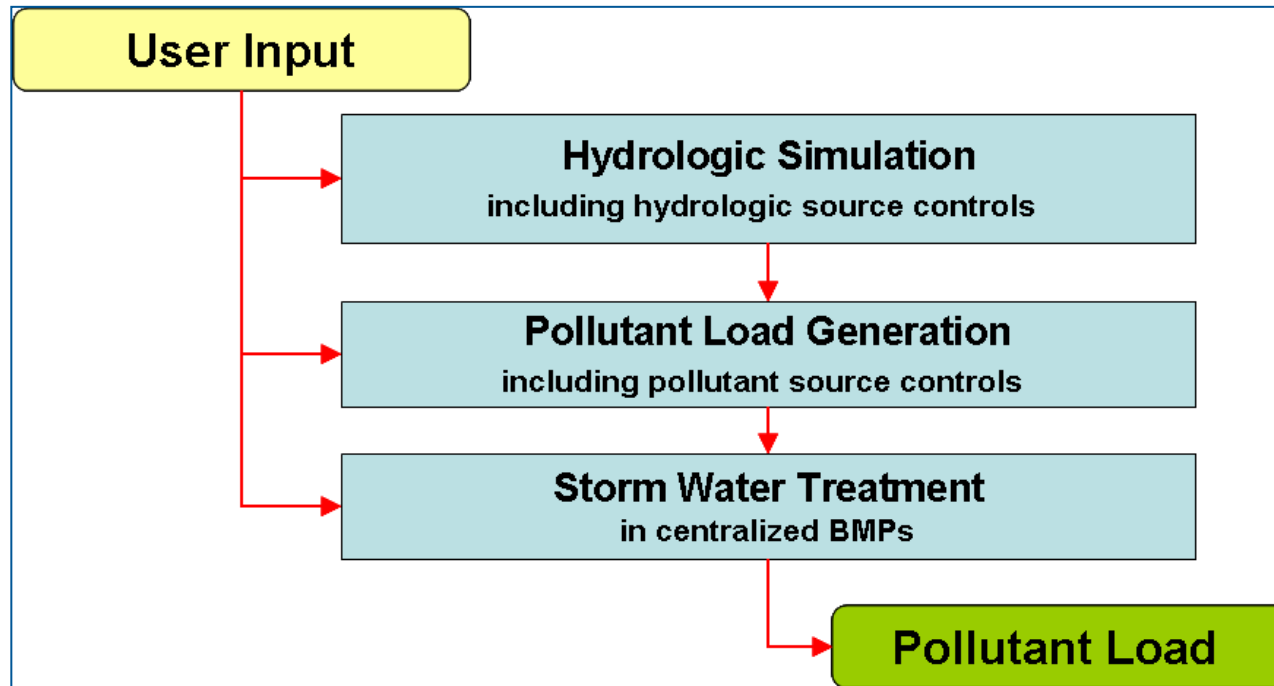
Acres of Disturbed Area Restored or Enhanced
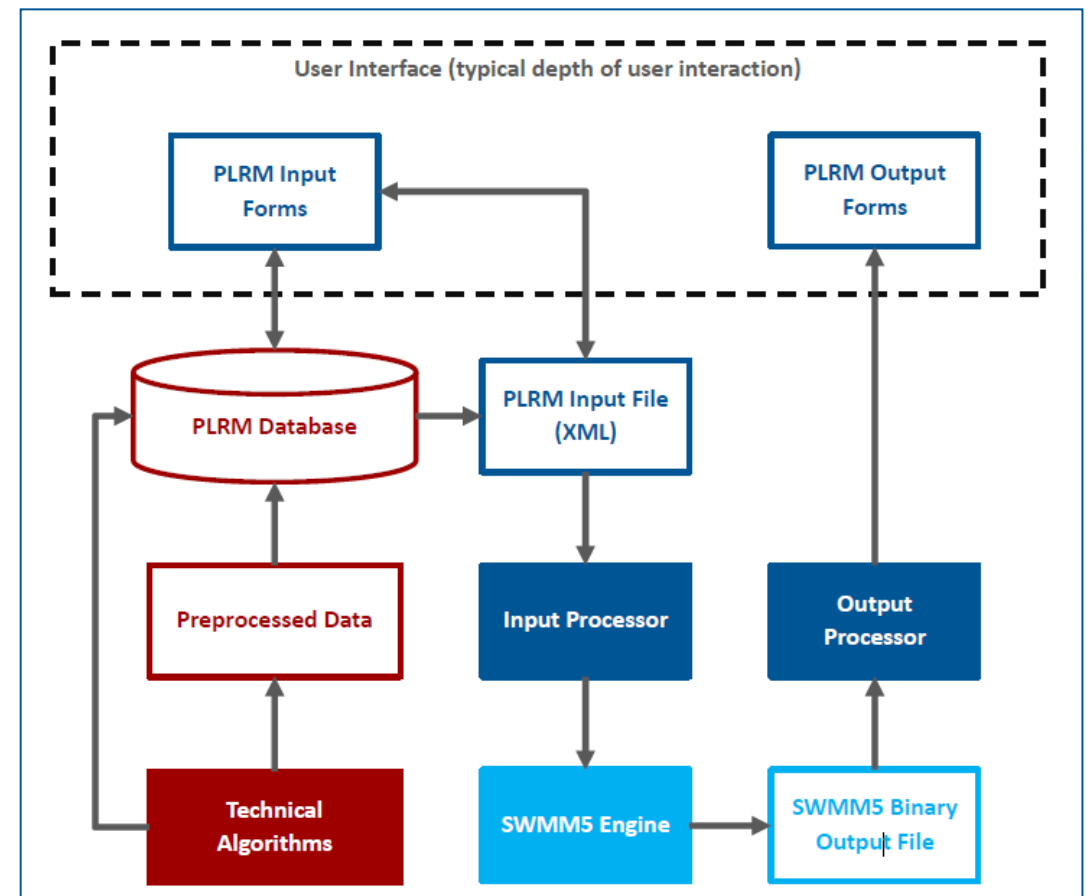
Parcels With Stormwater Retrofits

Linear Feet of Stream Channel Restored or Enhanced

Environmental Incentives

POLLUTANT LOAD REDUCTION MODEL (PLRM)

MODEL STAGES

MODEL STRUCTURE

What Is Being Modeled?

Example – Treatment BMP
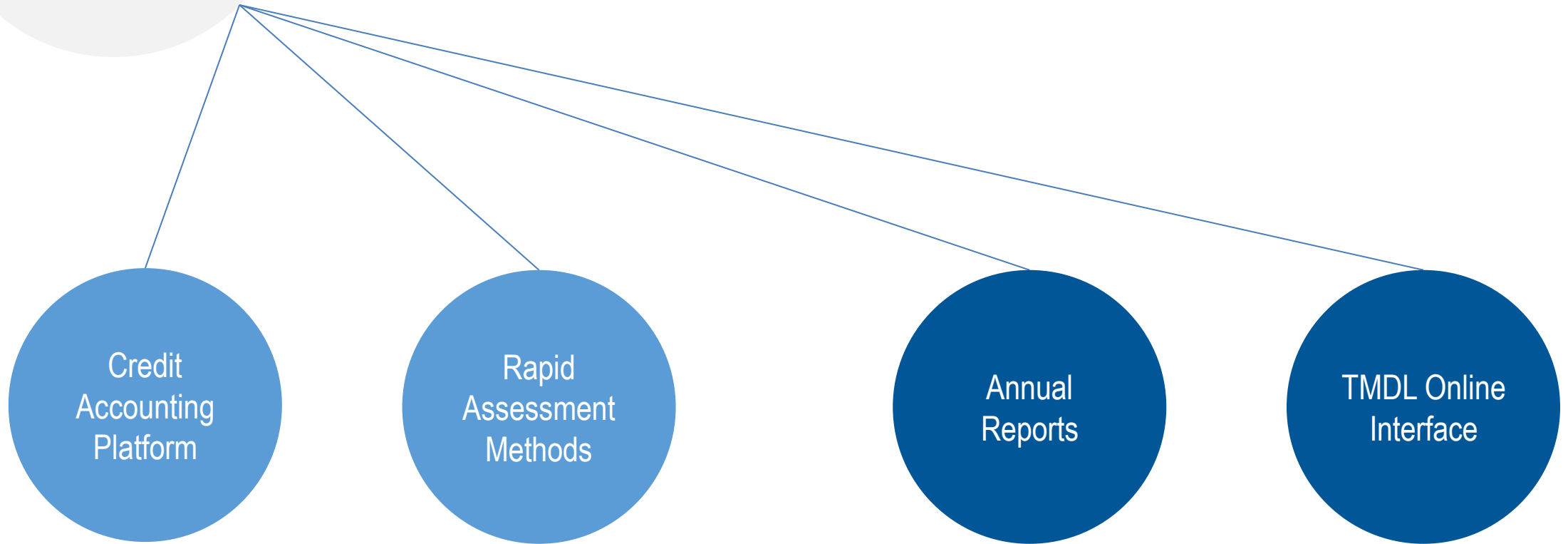
For Urban Runoff in Kings Beach, Placer County

Stay Relevant , Learn Fast & Use Tools

STRUCTURE REPORTING & ADAPTATION

Credit Accounting Platform

Rapid Assessment Methods

Annual Reports

TMDL Online Interface

Environmental Incentives

CREDIT ACCOUNTING PLATFORM

http://www.tahoeroadram.com/cap/Login/login.php

INVENTORY & REGISTER

Complete inventory, estimate load reduction, and submit registration.

INSPECT

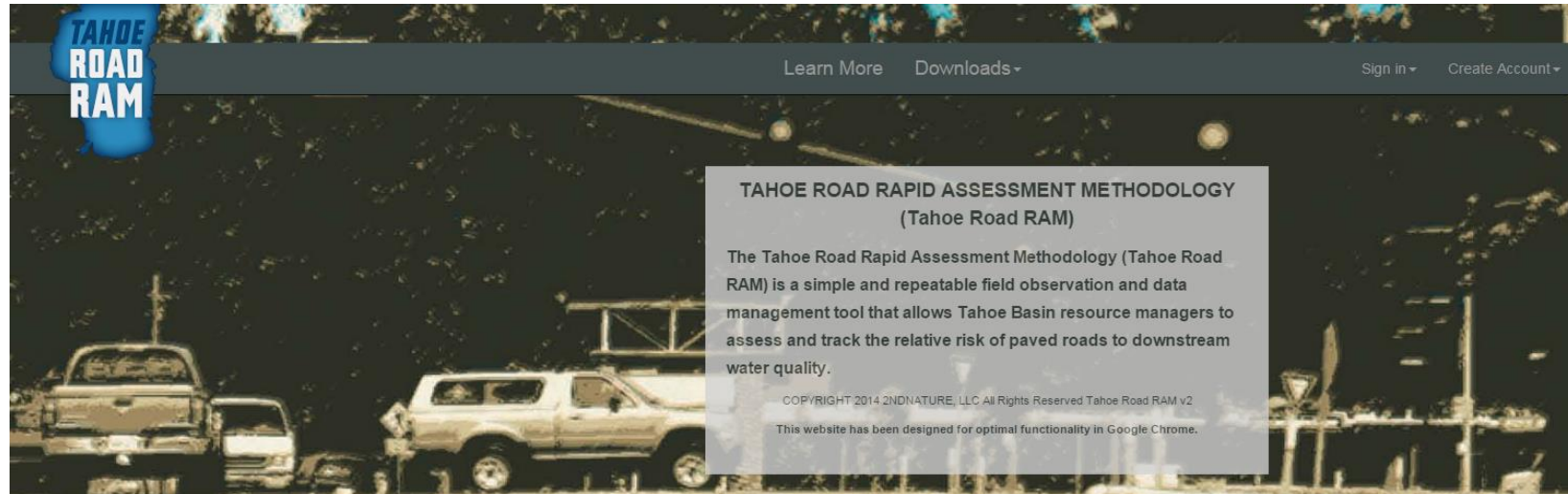Conduct annual maintenance and condition inspections of pollutant control strategies.

DECLARE

Declare annual credits based on inspection results.

REPORT

View annual report of credit progress for jurisdiction.

Environmental Incentives

2NDNATURE
ecosystem science + design

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Rapid Assessment Methods (RAMs)

Tahoe Road RAM www.tahoeroadram.com

Tahoe BMP RAM www.tahoebmpram.com

Annual Report Document

What do we want?

Restore lake clarity
(Beneficial Use: non-contact recreation)

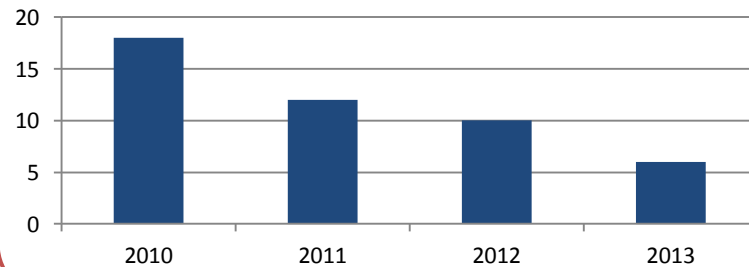**What are we doing about it?**

Urban sediment source control
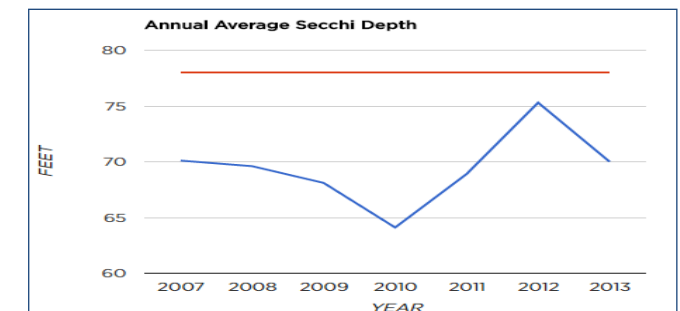
How are we doing?

Clarity loss is slowing

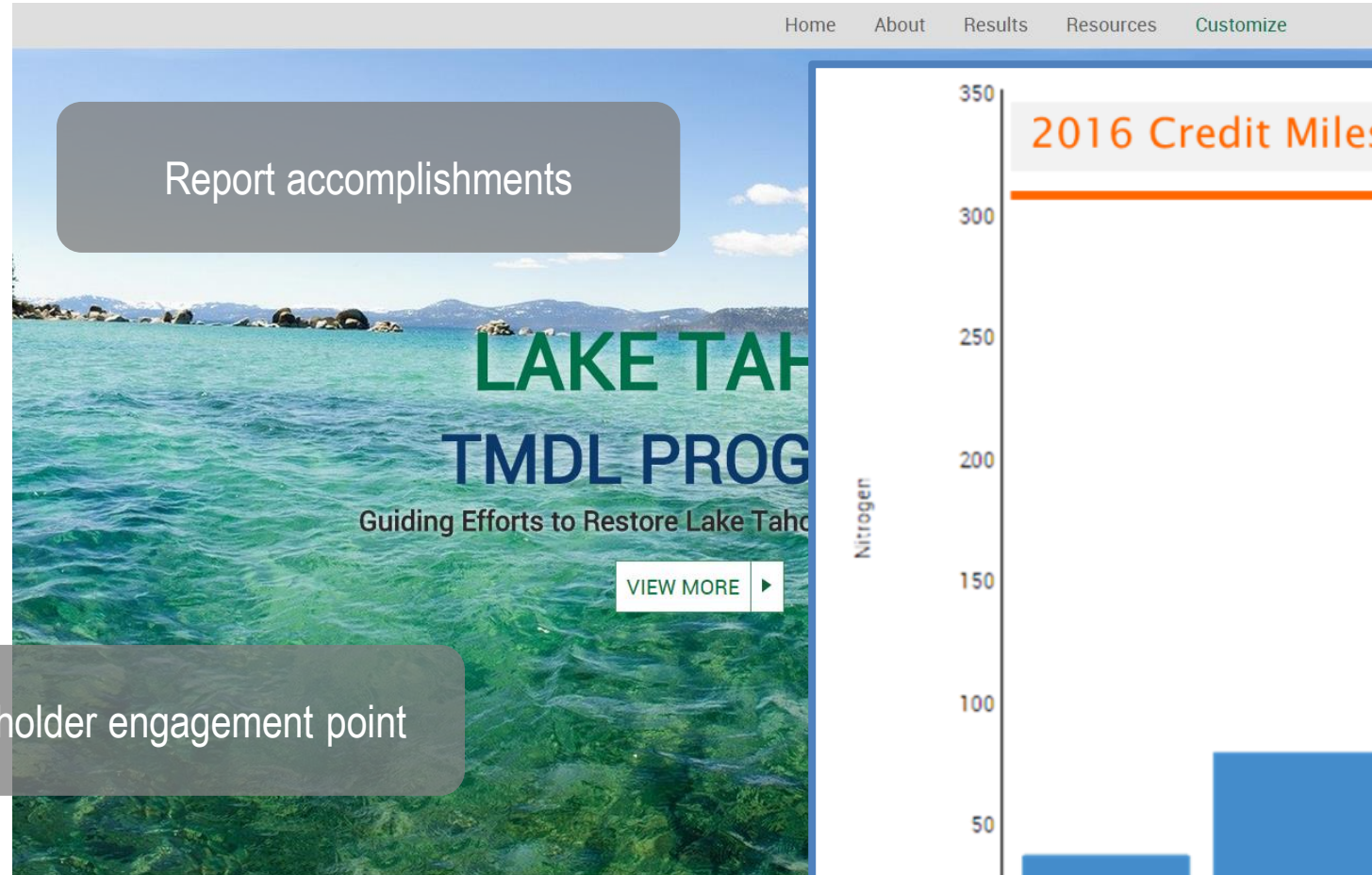**Performance Metric**
Sediment load reduced

Outcome Metric
Secchi Depth

Annual Average Secchi Depth

TMDL Online Interface

https://www.enviroaccounting.com/TahoeTMDL/Program/Home
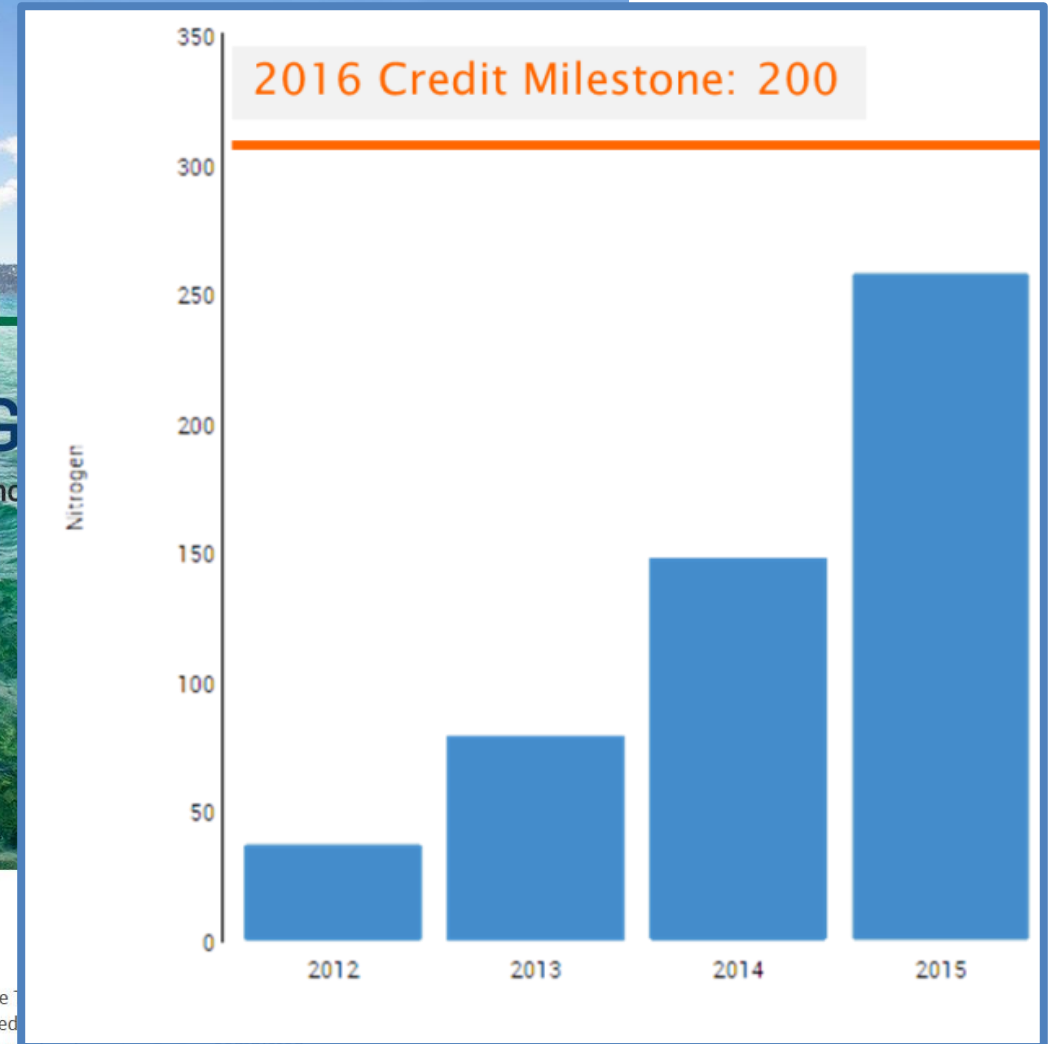
- Link modeling assumptions to observable metrics

- Respect & focus practitioner judgement

- Metrics need quantity and quality aspects